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EXAMINER	
NGO, NGUYEN HOANG	
ART UNIT	**PAPER NUMBER**
2616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/735,939	ROCH ET AL.	
	Examiner	Art Unit	
	Nguyen Ngo	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 July 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,8-23 and 25-33* is/are rejected.

7)☒ Claim(s) *7, 24* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This communication is in response to the amendment of 7/20/2007. Accordingly, Claims 1-33 are currently pending in the application.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1 and 17 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Duffield et al. (US 6912232), in view of Cidon et al. (US 6269330) hereinafter referred to as Duffield and Cidon.

Regarding claim 1 and 17, Duffield discloses a method and apparatus for a VPN that offers efficient utilization of network resources by dynamic resource allocation techniques that permit real time resource allocation resizing (a method of providing

dynamic QoS treatment (resource allocation) of data traffic within a secure VPN, abstract). Duffield further discloses;

when a customer network request a hose for accessing a VPN, the access point determines an SLA to specify a hose profile for the hose and the successfully negotiated SLA is stored in memory and that the hose profile includes QoS information (col11 lines 21-30). Based on the hose profile in the memory, the access point establishes the hose between the customer network and the VPN (querying a policy database to obtain QoS information (profile/policy information) concerning a desired QoS treatment for data traffic within the VPN tunnel, col11 lines 32-36 and col4 lines 35-40).

that traffic information (data packet) is transmitted over the VPN and that each data packet include QoS marking and the VPN processes and forwards the data packets toward the destination end of the VPN tunnel (table 3-5 of col7 and col8) based on the mark (attaching a QoS marker based on the QoS information to the data traffic within the VPN tunnel, col5 lines 37-42 and col5 lines 60-66 and col12 lines 65-67).

Duffield however fails to disclose forwarding the QoS information through the VPN tunnel to a VPN gateway at an opposite end of the VPN Tunnel. Duffield however discloses of different customer networks, which are the end of the VPN endpoints and that each customer network must specify communication link parameters (col2 lines 49-57). Duffield further discloses the need for resource utilization efficiencies (col2 lines 19-23) and that the VPN service provider may monitor VPN traffic (col10 lines 45-52).

Cidon further discloses the method for testing a network having a plurality of nodes and that traffic generators emulate digital data in accordance with standard protocols (col4 lines 3-8 and col18 lines 1-15). Cidon further discloses establishing a plurality of connection with various QoS requirements and thereafter checking how well the connections actually support the promised QoS (col18 lines 44-50). It would have thus been obvious to a person skilled in the art at the time the invention was made to incorporate the concept of testing a connection between a source and destination with a particular QoS requirement as disclosed by Cidon into the method for a virtual private network as disclosed by Duffield in order to efficiently test a VPN tunnel so that QoS may be guaranteed. Thus the VPN tunnel be forwarded with emulated data comprising QoS information so that testing of the tunnel may occur before actual data marked with a specified QoS is sent.

4. Claims 2, 18, are rejected under 35 U.S.C. 103(a) as being unpatentable over Duffield et al. (US 6912232), in view of Cidon et al. (US 6269330) hereinafter referred to as Duffield and Cidon.

Regarding claim 2 and 18, the combination of Duffield and Cidon, more specifically Duffield discloses the QoS information obtained comprises the QoS marker (col5 lines 40-45 and col5 lines 50-55).

5. Claims 6, 8-16, 22, 23, 25-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duffield et al. (US 6912232), in view of Cidon et al. (US 6269330), in further view of Ebata et al. (US 6708209), hereinafter referred to as Duffield, Cidon, and Ebata.

Regarding claim 6, the combination of Duffield and Cidon fails to specifically disclose the limitation of claim 6. Duffield however discloses that each customer specify communication link parameters such as bandwidth, packet delay, etc (col2 lines 55-58), thus providing the motivation for a need to specify the desired QoS for communication.

Ebata discloses a network system which has a plurality of networks (VPN endpoints) each having a policy server (policy database) and which performs by using the policy server of each network the QoS control on a communication extending to two or more different networks (col1 lines 60-65) and that the policy server setting a quality-guaranteed path in the network according to a policy held in the policy server (col2 lines 1-4). Ebata further discloses (figure 5 showing the policy server);

obtaining, from a customer (user), an indication of a desired QoS treatment (request accepting unit, col5 lines 15-18 and 304 of figure 5).

confirming an availability of the desired QoS treatment (col5 lines 19-22 and col13 lines 10-15).

if the desired QoS treatment is available, updating the policy database with information respecting the desired QoS treatment (update unit, col5 lines 10-13 and 302 of figure 5).

It would thus be obvious to a person skilled in the art at the time the invention was made to incorporate the method of obtaining the desired QoS from a customer ad disclosed by Ebata into the method for a VPN that offers efficient utilization of network resources by dynamic resource allocation techniques that permit real time resource allocation resizing as disclose by Duffield and Cidon in order to efficiently specify a desired QoS for a communication between source and destination in a reliable and efficient manner.

Regarding claim 8 and 25, the combination of Duffield, Cidon, and Ebata, more specifically Ebata discloses querying the policy database is performed at a start of the communication session (querying the database for bandwidth allocation before communication is transmitted, col9 lines 21-26 and col12 lines 46-51).

Regarding claim 9, 22 and 26, the combination of Duffield, Cidon, and Ebata, more specifically Ebata discloses querying the policy database is performed in response to a session initiation message (allocation request) received from the customer (col12 lines 46-51).

Regarding claims 10, 11, 13, 27, 28, and 30 the combination of Duffield, Cidon, and Ebata, more specifically Ebata discloses the step of querying the policy database is performed in response to a change in the information respecting QoS treatment stored

in the policy database (policy change, col11 lines 50-52). It should further be obvious that this policy change may be implemented during the communication session between networks or during predetermined intervals during the communication session, as this is system parameter and a well-known technique the art.

Regarding claims 12 and 29, the combination of Duffield, Cidon, and Ebata, more specifically Ebata discloses the step of querying the policy database is performed in response to a query request from either one of the customer and a service provider (col5 lines 15-19 and col12 lines46-51).

Regarding claim 14, 15, 16, 31, 32, and 33 the combination of Duffield, Cidon, and Ebata, more specifically Ebata discloses a step of notifying a service provider (service administrator) of the indicated QoS treatment (user request of allocation (indicated QoS treatment) which queries the policy database, col12 lines 60-65). It would further be obvious to notify the service provider at a start of the communication session as the user starts the allocation request for provisioning of an acceptable quality guaranteed path thus starting a communication session.

Regarding claim 23, the combination of Duffield, Cidon, and Ebata, more specifically Ebata discloses;

a policy update message adapted to convey the QoS information through the VPN tunnel (col11 lines 59-65).

means for inserting the QoS information into a payload portion of the policy update message (col11 lines 65-67 and figure 17).

6. Claims 3, 4, 5, 19, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duffield et al. (US 6912232), in view of Cidon et al. (US 6269330), in further view of Ebata et al. (US 6708209), in further view of Martin et al. (US 6765927), hereinafter referred to as Duffield, Cidon, Ebata and Martin.

Regarding claim 3 and 19, the combination of Duffield, Cidon, and Ebata fails to disclose the specific limitation of claim 3. Duffield however discloses the RSVP protocol be used to maintain the resource reservations across the nodes of the established path (col14 lines 25-30).

Martin further discloses of Tspec and Rspec describing certain QoS, which are well known in the RSVP protocol and in the art. It would have thus been obvious to incorporate the use of Tspec and Rspec parameters indicative of desired QoS treatment as disclosed by Martin into the method of VPN tunneling which perform quality guarantee among different networks and offers efficient utilization of network resources by dynamic resource allocation techniques as disclosed by the combination of Duffield and Ebata to better guarantee services.

Regarding claim 4 and 20, the combination of Duffield, Cidon, Ebata, and Martin, more specifically Martin discloses a gateway (figs 1 and 2 item 140, and col2 lines 56-57) that queries a policy database (figs 1 and 2 item 150) that keeps the QOS information (col2

lines 60-61), the gateway sending packets (col2 line 66), when the policy database is queried the information comprises the Tspec and Rspec parameters. Col 4 lines 19-26 describe that the rules defining QOS limitations are pulled down (queried) followed by the forwarding of the RSVP Path and Resv packets, which said parameters (figs 3A and 3B), which are QOS markers that are mapped and inserted into data traffic (col4 lines 29-33). The RSVP processing disclosed by Martin is performed at a start of an RSVP communications Session in response to a Session initiation message (RSVP message packets, col4 lines 4-5) received from a customer (source host, fig 2 item 110).

Regarding claim 5 and 21, the combination of Duffield, Cidon, Ebata, and Martin, more specifically Duffield discloses the QoS marker is a DSCP value (DiffServ, col14 lines 10-15).

Allowable Subject Matter

7. Claims 7 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

8. Applicant's arguments filed 7/20/2007 have been fully considered but they are not persuasive.

9. Applicant submits that the combination of Duffield and Cidon fails to teach or suggest the step of sending QoS information through the VPN tunnel to a VPN gateway at the opposite end of the tunnel. Examiner however insists that it is not unreasonable to correlate the teachings of Cidon to such a limitation. Cidon teaches establishing a plurality of connections with various QoS requirements and thereafter checking how well the connections actually support the promised QoS (col18 lines 44-50) and that the digital data used in testing the connection includes test information such as information regarding the nature and timing of future data in the stream (col3 lines 55-67) and that that the method is provided for evaluation of the performance of communication networks (col2 lines 15-20), such as VPN networks. Examiner thus relies on Cidon to teach the concept of testing a connection (correlating to a VPN connection between endpoints) by sending digital data comprising test information (QoS information), thus correlating to "forwarding the QoS information (emulated digital data with testing information) thought the VPN tunnel to a VPN gateway at an opposite end of the VPN tunnel (connection between two endpoints)" so that the VPN connection, as disclosed by Duffield, may be checked against various QoS requirements.

Conclusion

10. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nguyen Ngo whose telephone number is (571) 272-8398. The examiner can normally be reached on Monday-Friday 7am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on (571) 272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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